

KENWOOD

CD CDV LD PLAYER

LVD-820R

INSTRUCTION MANUAL

KENWOOD CORPORATION

COMPACT
disc
DIGITAL AUDIO


LASER DISC

LD
SINGLE

B60-0927-10 (JA) (K) (MC)
93/12 11 10 9 8 7 6 5 4 3 2 1 92/12 11 10 9 8



Your choice of this product indicates that you are a devotee to excellence in sound reproduction. We appreciate your patronage and take pride in the long tradition of quality components that our company represents. So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

The marking of products using lasers (Except for some areas.)

**CLASS 1
LASER PRODUCT**

The label is attached to the rear panel and says that the component uses laser beams that have been classified as Class 1. It means that the unit is utilizing laser beams that are of a weaker class. There is no danger of hazardous radiation outside the unit.

For the USA

CAUTION:

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD CORPORATION
SHIONOGI SHIBUYA BUILDING 17-5,
2-CHOME, SHIBUYA, SHIBUYA-KU,
TOKYO, JAPAN

KENWOOD CORP. CERTIFIES THIS EQUIPMENT
CONFORMS TO DHHS REGULATIONS NO. 21 CFR
1040. 10, CHAPTER I, SUBCHAPTER J.

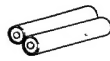
Location: Back Panel

Accessories

Remote control unit 1 Audio cord 1



Video cord 1 Battery ("AA" or "R6") .. 2



Contents

Caution: Read the pages marked  carefully to ensure safe operation.

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⚠ Caution: Read this page carefully to ensure safe operation.

Before applying power

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THE AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

For the United Kingdom

Important!

Units shipped to the U.K. are designed for operation on 240 volts AC only.

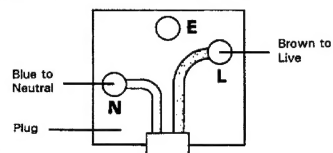
The mains plug must be removed from the wall socket prior to any internal examination.

The wires in this mains lead are coloured in accordance with the following code:

Blue Neutral
Brown Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour	Plug terminal marking
Blue	N or Black
Brown	L or Red



Notes:

1. If a 13-amp plug is used, this must be fitted with a 5-amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on 240 V AC only.

Units shipped to Europe are designed for operation on 230 V AC only.

For other countries

Important!

Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

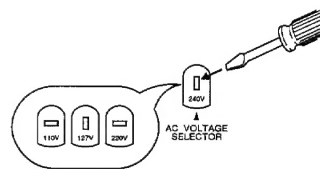
AC voltage selection

This unit operates on 110/127 or 220/240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.





AC voltage selector switch



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Safety precautions

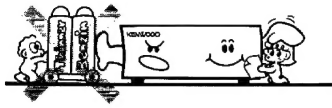
WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN		CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.		
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.		

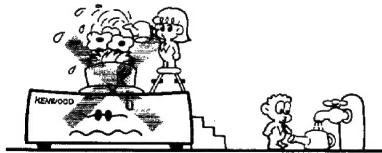
IMPORTANT SAFEGUARDS

⚠ Caution : Read this page carefully to ensure safe operation.

1. **Read instructions** — All the safety and operating instructions should be read before the appliance is operated.
2. **Retain instructions** — The safety and operating instructions should be retained for future reference.
3. **Read warnings** — All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow instructions** — All operating and use instructions should be followed.
5. **Cleaning** — Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.



6. **Attachments** — Do not use attachments not recommended by the video product manufacturer as they may cause hazards.
7. **Water and moisture** — Do not use the video product near water — for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.



8. **Accessories** — Do not place this video product on an unstable cart, stand, tripod, bracket, or table. The video product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video product. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

- 8A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



9. **Ventilation** — Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the video product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the video product on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

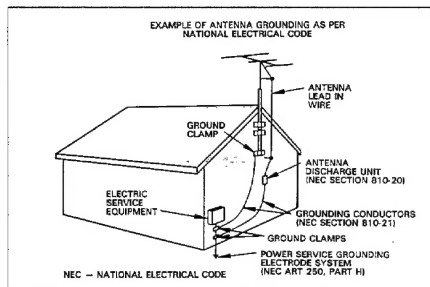


10. **Power sources** — This video product should be operated only from the type of power source indicated on the making label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.

11. **Grounding or polarization** — This video product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

12. **Power cord protection** — Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

13. Outdoor antenna grounding — If an outside antenna or cable system is connected to the video product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead — in wire to an antenna discharge unit size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

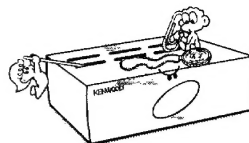


14. Lightning — For added protection for this video product receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

15. Power lines — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

16. Overloading — Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

17. Object and liquid entry — Never push objects of any kind into this video product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.



18. Servicing — Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. Damage requiring service — Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- (a) When the power supply cord or plug is damaged,
 - (b) If liquid has been spilled, or objects have fallen into the video product.
 - (c) If the video product has been exposed to rain or water.
 - (d) If the video product does not operate normally by following the operating instructions.
- Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
- (e) If the video product has been dropped or the cabinet has been damaged.
 - (f) When the video product exhibits a distinct change in performance — this indicates a need for service.

20. Replacement parts — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

21. Safety check — Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

Before operation

Discs which can be played with this unit

Disc types



1. With this unit, use discs which bear one of the logos shown at the left.
2. This unit cannot be used with CED or VHD type video discs.
3. This unit conforms to the NTSC system. Discs indicated for use with other television systems (PAL, SECAM) cannot be used with this unit.

Disc sizes

CD single
8 cm



One side only,
Audio:
20 minutes max.

CD
12 cm



One side only,
Audio:
74 minutes max.

CDV
12 cm



One side only,
Audio: 20 minutes
max.
Video: 5 minutes
max.

* Video Single
12 cm



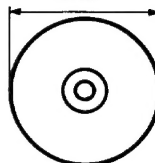
One side only,
Video: 5 minutes
max.

LD single
20 cm



CAV: One side
14 minutes max.
CLV: One side
20 minutes max.
(This unit can play even thin-
type 20 cm LD singles with-
out requiring an adaptor.)

LD
30 cm



CAV: One side
30 minutes max.
CLV: One side
60 minutes max.

* When using a video single disc, the unit will stop playing approxi-
mately 10 seconds after the visuals end.

CAV discs (Standard Play discs)

Discs of this type spin at a fixed rotational speed (Constant Angular Velocity) of 1800 rpm. Each revolution is equivalent to one video frame, and each frame is assigned its own frame number. Special video playback functions such as still frame, frame advance, and multi-speed playback are available with this disc type.

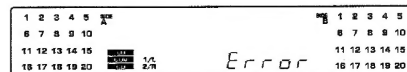
CLV discs (Extended Play discs)

When a CLV disc is played, the rotational velocity is varied as the playback position moves from the inside to the outside of the disc, thus maintaining a Constant Linear Velocity. Discs of this type are recorded with the time numbers which indicate the elapsed play time from the beginning of the disc. Although special video playback functions are not possible with CLV discs, CLV discs offer longer playback time compared to CAV discs.

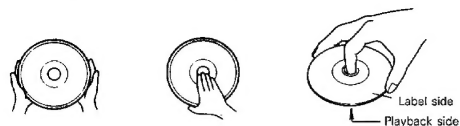
Precautions when transporting or moving this unit

Before transporting or moving this unit, carry out the following operations.

1. Turn the power on and open the disc tray. If a disc is loaded, remove the disc.
2. Install the transportation-use spacer and close the tray.
3. Wait several seconds and make sure the display changes as shown in the figure.
4. Turn the power off.

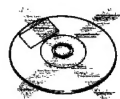


Disc Handling Precautions



with LDs

with CDs and CDV discs



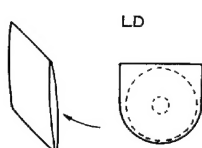
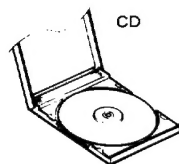
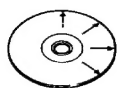
Handling

Hold the disc so that you do not touch the playback side.

Do not attach anything such as tape or paper to either the playback side or the label side.

Cleaning

To remove fingerprints or dirt from a disc, gently wipe the disc with a soft cloth in a radial direction (straight from the center to the edge).



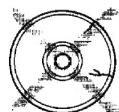
Storage

If a disc is not to be used, remove it from the unit and store it in its case.

Disc Use Precautions

Do not use cracked or warped discs

During play, a disc rotates at very high speeds inside the player. Never use cracked or defective discs or discs which are noticeably warped. Use of such a disc may damage the player.



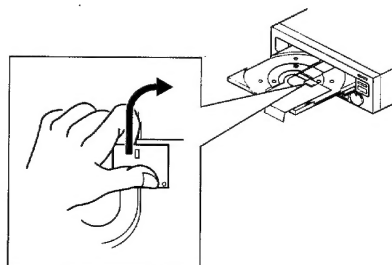
Removing the transportation-use spacer

At the factory, a transportation-use spacer is installed in the disc tray to protect the unit from damage during shipment. This spacer must be removed before the unit is used.

Remove the spacer as follows

1. Plug the power cord into an AC outlet and press the POWER key to turn the power on.
 - After approximately 10 seconds, the display changes from the blinking "PLAY" indication to a blinking "Error" warning.
2. Press the OPEN/CLOSE (▲) button to open the tray.
3. Remove the spacer from the tray as shown in the figure.

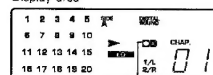
If it becomes necessary to transport the unit again in the future, use the reverse procedure to re-install the spacer.



Before operation

CX Noise Reduction System

Display area



CX indicator

This unit realizes low-noise, powerful sound reproduction through the use of the CX Noise Reduction System. When a disc bearing the CX mark is played, this system automatically operates and the CX indicator lights in the display.

- If the CX indicator does not light when playing a disc which bears the CX mark, press the CX key on the remote control unit so that the CX indicator appears.

Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced.

If condensation occurs, correct operation may not be possible, or the unit may not function correctly.

This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

Be especially careful in the following conditions:

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

CD/CDV/LD terminology

Chapter number (LD)

Like a book, LDs are divided into "chapters," each of which is assigned a chapter number. Chapter numbers are used on the jacket cover to designate the disc contents. Using these chapter numbers, you can use functions such as the Chapter Search function which enables you to quickly locate desired scenes.

- Some discs are not recorded with chapter numbers.

Frame number (LD)

"Frame" is the name given to each image recorded on a standard play (CAV) disc, and is equivalent to a "page" in a book. By designating frame numbers recorded on the disc, you can carry out operations such as Frame Search which allows you to begin playback from a desired scene.

Time number (LD)

Time numbers are recorded on extended play (CLV) discs and indicate the elapsed play time from the beginning of the disc. Operations such as Time Search can be carried out using these time numbers. Time numbers are recorded in second units or minute units, depending on the disc.

Track number (CD, CDV)

Track numbers are used to designate the various sections of a disc. CDV discs are recorded with track numbers which continue in sequence from the audio part to the video part. Using these track numbers, you can carry out functions such as Track Search to quickly find a desired tune.

TOC (CD, CDV, LD)

In addition to audio signals, all CDs and CDV discs are recorded with a data section called a TOC (Table of Contents) at the beginning of the disc. The TOC is equivalent to the table of contents of a book and contains information such as the track number and playing time of each tune.

- Some LDs are also provided with a TOC.

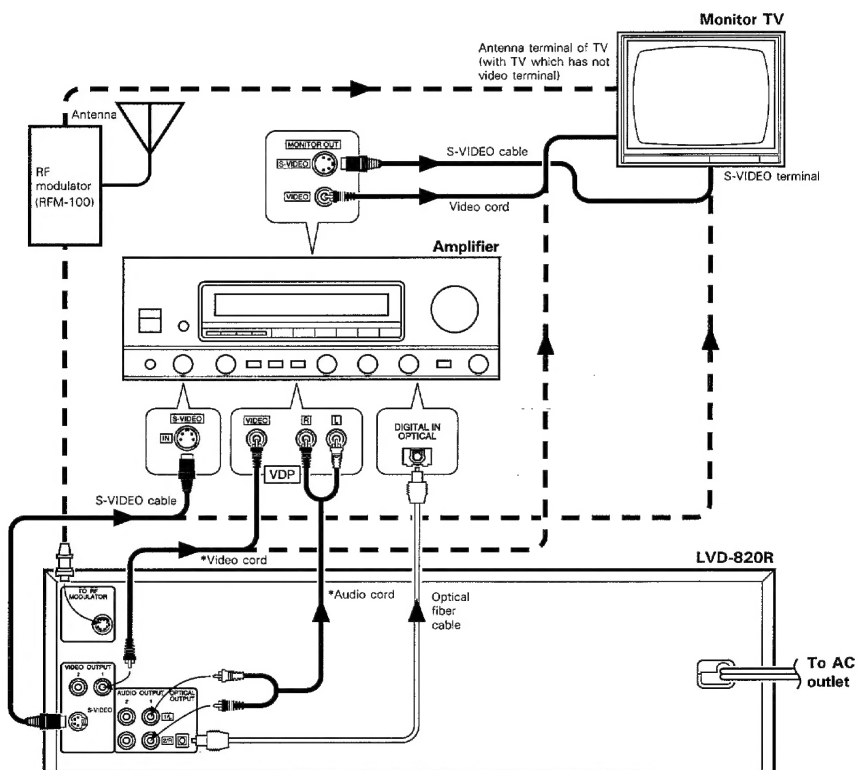
System connections

Make connection as shown in the diagram below.

When connecting the related system components, refer also to the instruction manuals of the related components.
Do not plug in the power lead until all connections are completed.

■ Basic connection

- If you have an amplifier which can switch video signals, connect the output jacks of this player to the amplifier's input jacks.
- If you have an amplifier which cannot switch video signals, connect the audio output jacks of this player to the input jacks of the amplifier and connect the video signal to your TV's video input jack.
- If your TV does not have a video input jack, use an optional RF modulator (RFM-100) to connect the video signal to your TV's antenna terminal. For detail, consult your dealer.
- If your TV has an S-VIDEO terminal, use an S-VIDEO cable to connect the S-VIDEO terminals of the TV and the player.



Cords not marked with an asterisk (*) are not supplied with this unit.

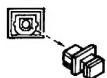
Notes:

1. Connect all cords firmly. If connections are loose there could be loss of sound or noise produced.
2. When plugging and unplugging connection cords after connections are complete, be sure to first remove the power cord from the AC outlet. Plugging/unplugging connection cords without removal of the power cord can cause malfunctions or damage to the unit.

System connections

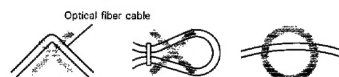
Optical fiber cable connection

Before connecting the optical fiber cable, remove the protection cap from the terminal.



Insert the optical fiber cable connector straight-forward into the terminal until it clicks.

- Be sure the protection cap is attached to the optical terminal when the terminal is not being used.
- Be careful not to bend, coil, or bundle the optical fiber cable.



- Optical fiber cables available on the market may not always be able to be used with this player. If your cord cannot be used with this unit, consult the store from which you purchased the cord or your nearest dealer.

S-VIDEO terminal:

The S-VIDEO signal system separates the normal video signal (composite signal) into a signal which conveys brightness (Y signal) and a signal which conveys color (C signal), and transmits these signals independently.

Use this terminal for superior picture quality.

Video terminal configurations:

The configurations of the S-VIDEO and VIDEO (composite) terminals are as shown below.

S-VIDEO terminal



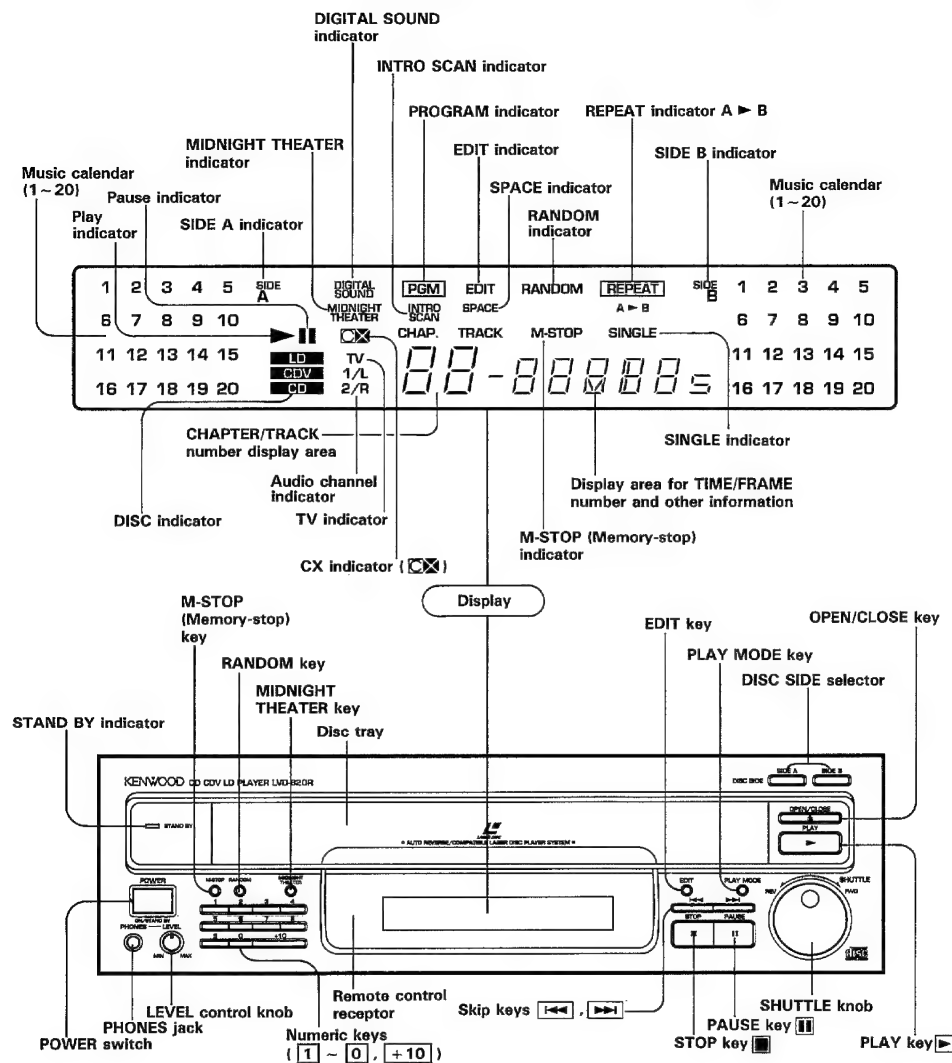
VIDEO terminal



STAND BY mode of POWER switch

When the power cord of this system is plugged into an AC outlet, the STAND BY indicator lights up regardless of the ON/OFF setting of the POWER switch. This indicates that a small amount of current is being supplied to the unit to back up the memory contents. This mode is referred to as the Stand By mode. While the STAND BY indicator is lit, the power of the system can be switched ON/OFF from the remote control unit.

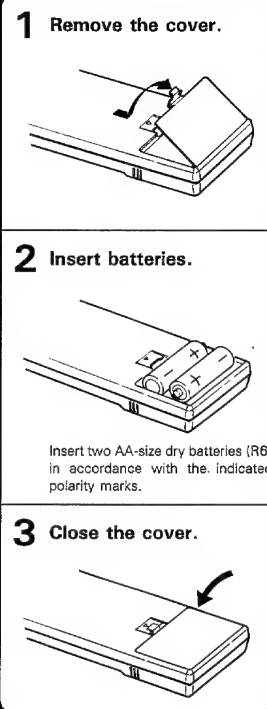
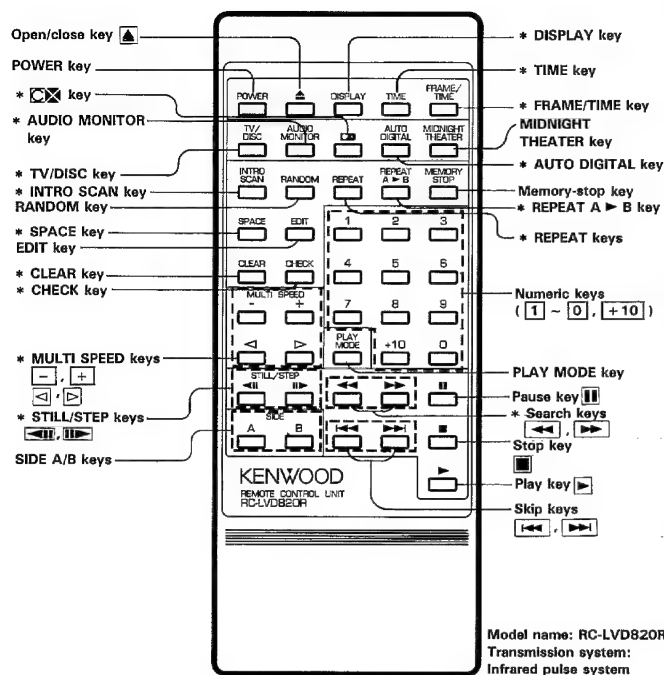
Controls and indicators



Remote control operation

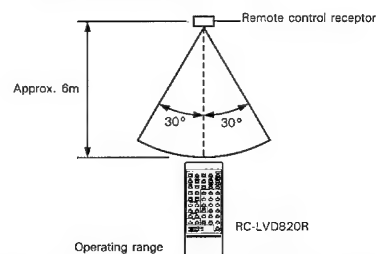
Operations of keys marked with "*" can be carried out on the remote control unit only.

■ Loading the batteries



■ Operation

The coverage angle and distance varies depending on the temperature and humidity. Refer to the following illustration for the approximate operation range.



- When pressing the remote control operation keys, press them securely, leaving an interval of more than 1 second between them.

Notes:

- The supplied batteries are intended for use in checking the operation of the unit and may have a short life.
- When operating distance range of the remote control unit becomes noticeably shorter, replace all two of the batteries with new ones.
- Malfunction may occur in case direct sunlight or the light of a high-frequency lighting fluorescent lamp enters the remote control light receptor. In such a case, change the installation position of the unit so that the malfunction does not occur.

Normal playback operation (CD, CDV, LD)

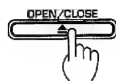
■ Playing a disc

- 1 Turn on the power to this unit and related components.

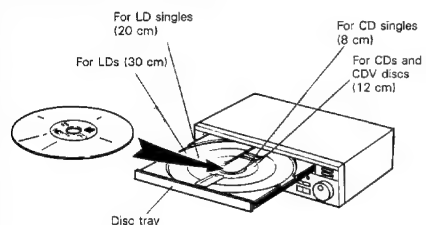


- Playback begins automatically if a disc is present in the player when the power is turned on.

- 2 Open the disc tray.



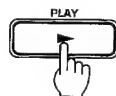
- 3 Place a disc in position.



- When playing a double-sided LD, place it with side A (1) facing upward.
- When playing a single-sided LD, CD and CDV, place with the side on which the title is written facing upward.

- 4 Close the tray.

- 5 Start playback.

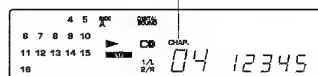


- With a double-sided LD, playback starts automatically from side A.
 - The PLAY indicator blinks while the type of disc is being detected automatically, and playback starts when the indicator starts to light steadily.
- To play side A (1): Press the SIDE A disc side selector key.
To play side B (2): Press the SIDE B key.

Display during disc play

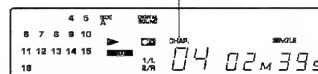
- ① When playing a CAV disc

If the disc has a TOC, the recorded chapter number are displayed.

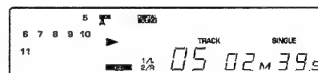


- ② When playing a CLV disc

If the disc has a TOC, the recorded chapter number are displayed.



- ③ When playing a CD

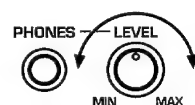


■ Using the stereo headphones

- 1 Insert the headphone plug into the PHONES jack.



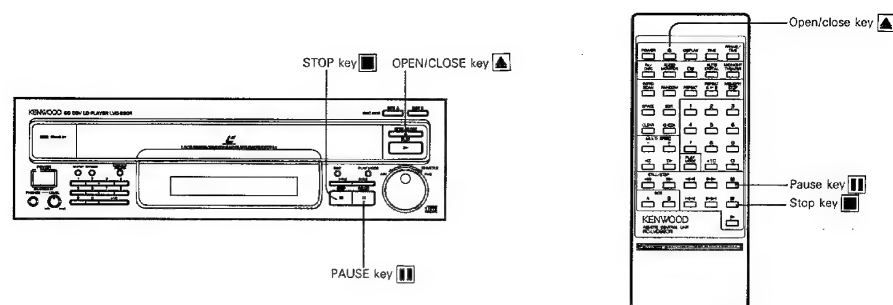
- 2 Adjust the volume level.



Notes:

1. Do not place any object on the disc tray other than a disc.
2. A disc may become scratched if placed on the tray at a slant.
3. Only place one disc at a time on the disc tray. Placing two or more discs on the tray may damage the unit.

Normal playback operation



■ Pausing playback

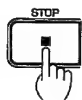


Chapter (track) numbers which have already been played are extinguished.

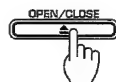


- Audio and video are suppressed and the pause indicator (||) lights.
- Pressing the PLAY (▶) key once more starts playback from the paused position.

■ Stopping playback



■ Removing the disc

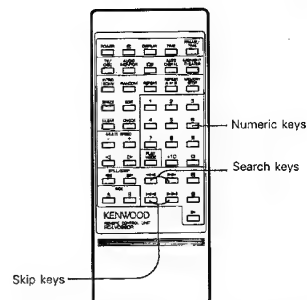


- The disc tray ejects, allowing you to remove the disc.
- Press the OPEN/CLOSE (▲) key again to close the disc tray.

Note:

To protect your discs, never turn the POWER switch OFF during playback. Always press the stop (■) key and then the OPEN/CLOSE (▲) key to remove the disc before turning the power off.

Searching for a desired scene (tune) (CD, CDV, LD)

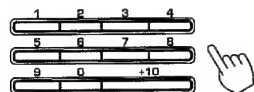


■ Searching desired scene (music) by chapter (track) number

(LD: Chapter search) (CD: Track search)

Searching using the numeric keys

Specify the chapter number (track number) using numeric keys.



Input example:

14 is input by pressing +10 once and then pressing 4.
20 is input by pressing +10 twice and then pressing 0.

- After search, the previous operation (playback, pause or still frame playback) resumes.

Searching using the skip keys



Track located before
current position

Track located beyond
current position

- Each time the key is pressed, the play position advances to the next chapter (track).
- If is pressed once during playback, the play position returns to the beginning of the current chapter (track). If pressed again, the play position returns to the preceding chapter (track).
- When searching is finished, the original operation mode resumes.

■ Locating a desired scene (tune) by fast-forwarding/fast-reversing

(Manual Search)

Press the key corresponding to the direction in which you wish to search.



Fast-reversing



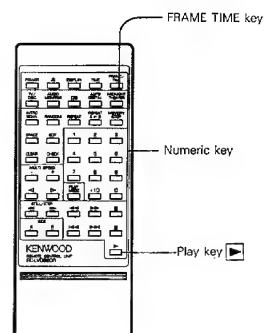
Fast-forwarding

- No sound is heard during fast-forwarding or fast-reversing. (LD, CDV video part)
- When the end of the video part is reached during fast-forwarding, the play position moves to the audio part and normal playback begins. (CDV)
- Fast-reversing from the audio part to the video part is not possible. (CDV)

Notes:

1. Chapter Search and Chapter Skip operations are not possible with discs which do not have chapters.
2. If you designate a chapter number which is not on the disc when using a disc that does not have a TOC, operation will stop after the player determines that the specified chapter does not exist.
3. Noise may appear on the screen during fast-forwarding or fast-reversing.

Searching for a desired scene (tune) (CD, CDV, LD)

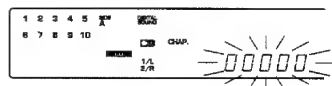


■ Locating a desired scene by frame number

(Frame search: LD-CAV only)

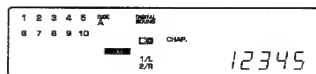
Example: Starting playback from frame number "12345".

1 Press the FRAME/TIME key.



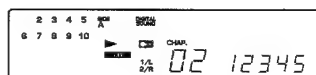
2 Within 7 seconds, designate the frame number (5 digits) using the numeric keys.

Press **1** **2** **3** **4** **5** in sequence.



- If you mistakenly enter the wrong frame number, press the CLEAR key once and then re-enter the number.
- If the CLEAR key is pressed twice, Frame Search is not carried out and the unit enters the original mode.

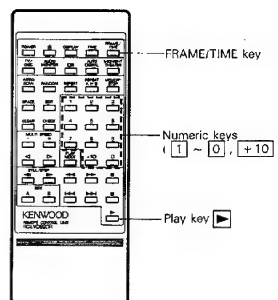
3 Start playback.



- In a few seconds, playback starts from the image of the specified frame number.
- The search is canceled if the play key (▶) has not been pressed for 7 seconds after the frame number was entered.
- If the pause key (⏸) or the STILL/STEP key on the remote control unit is pressed in place of the play key (▶), the corresponding operation starts.

Notes:

1. If you designate a frame number which is not recorded on the disc, operation will stop after the player determines that the specified frame does not exist.
2. Frame Search cannot be carried out during A>B repeat play.



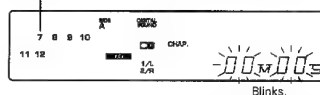
■ Locating a desired scene (tune) by time number (CD, CDV, and LD-CLV)

Example: Starting playback from an elapsed time of 12 min. 34 seconds.

1 Press the FRAME/TIME key.



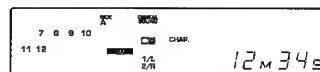
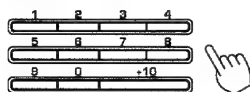
If the disc has a TOC, the recorded chapter numbers are displayed.



- With CDV discs, this operation is possible only while the disc is playing. Search is carried out only for the audio part when the audio part is playing, and only for the video part when the video part is playing.

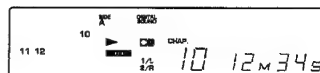
2 Within 7 seconds, designate the time (4 digits) using the numeric keys.

Press **1** **2** **3** **4** in sequence.



- If the disc does not contain the time number until the digits of second, enter "00" after the digits of minute (2 digits).
- If you mistakenly enter the wrong time number, press the CLEAR key once and then re-enter the number.
- If the CLEAR key is pressed twice, Time Search is not carried out and the unit enters the original mode.

3 Start playback.



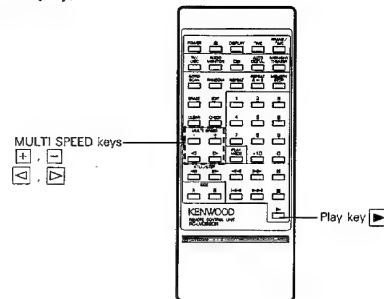
- After a short delay, playback begins from the designated time number (elapsed time).
- If the play key (▶) is not pressed within 7 seconds after the time setting, the setting is cancelled.
- If the pause key (||) is pressed in place of the play key (▶), the unit enters the pause mode.

Notes:

1. If you designate a time number which is not recorded on the disc, in the case of an LD operation will stop after the player determines that the specified time number does not exist; in the case of a CD or CDV disc the last track will be played and then operation will stop.
2. Time Search cannot be carried out during A>B repeat play.

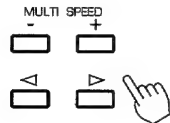
Special video playback functions (LD-CAV)

Special video playback functions are not possible with CLV (extended play) discs.



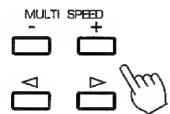
■ Changing the playback speed

- 1 Press the remote control unit's MULTI SPEED (< , >) key.



- Pressing the > side selects forward motion.
- Pressing the < side selects reverse motion.

- 2 Select the speed using the + and - keys.



- Eight speeds can be selected, with each press changing the speed in the following order.

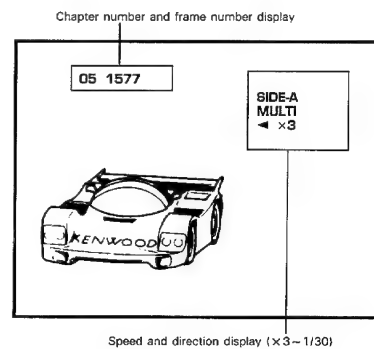
× 3	Three times the normal speed	+
× 2	Two times the normal speed	
× 1	Normal speed	
× 1/2	Half the normal speed	-
× 1/4	One-fourth the normal speed	
× 1/8	One-eighth the normal speed	
× 1/16	One-sixteenth the normal speed	
× 1/30	One-thirtieth the normal speed	

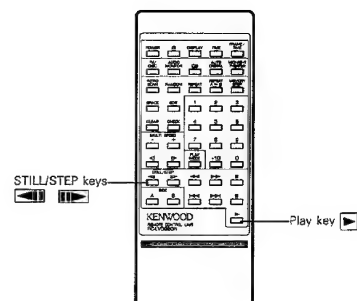
- No sound is output when using the MULTI SPEED function.

To resume normal playback



TV screen display:

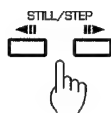






■ Stopping and viewing single frames

Still frame, frame advance, and frame reverse are possible.

Press the remote control unit's STILL/STEP key.

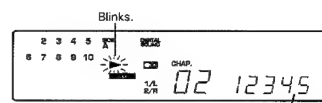


- The first press stops the image and displays a still frame.
- Each press of the  side advances the image by one frame.
- Each press of the  side reverses the image by one frame.
- No sound is output when using the still frame, frame advance, or frame reverse function.

To resume normal playback



Display indications



The frame number is increased or decreased by one frame each time the STILL/STEP key is pressed.

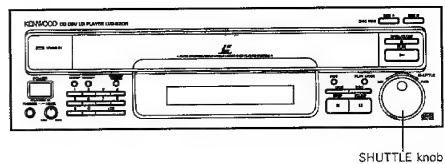
Note:

Images may be distorted during multi-speed playback, still-image playback or step advance/retreat playback.

Automatic Picture Stop Function

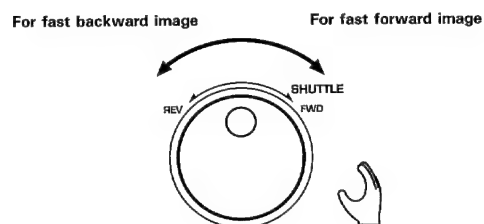
When playing a disc recorded with special signals called "picture stop codes", the unit will automatically enter still frame mode when it plays a frame that contains such a code. Following the screen display, enjoy the image using keys such as the STILL/STEP key.

Shuttle operation



■ Playing image continuous and fast in the forward/backward directions

Rotate the SHUTTLE control on the main unit.



- The image changes continuously according to the direction of rotation of the SHUTTLE control.

Notes:

1. The audio part of CD or CDV disc is played in normal fast forward/backward sound.
2. The image may be distorted during this operation.

Program play (CD, CDV, LD)

Up to 20 chapters (tracks) can be programmed and played in any desired order.

- Programming is not possible with discs that do not have chapter numbers.

■ Playing desired chapters (tracks) in the desired order

1 Set the unit in the stop mode.



2 Set the player to Program mode.



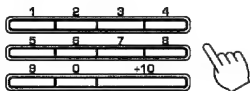
- Program mode cannot be set if the unit is in A ► B Repeat mode. In this case, press the REPEAT A ► B key to cancel A ► B Repeat mode.

3 Within about 7 seconds after step 2, enter the chapter number (track number) with the numeric keys.

Example: Selecting chapter numbers 3, 9, and 15.

Press the numeric keys in the following order:

[3] [9] [+10] [5].



- Chapters (Tracks) on a double-sided disc can be programmed regardless on whether they are located on side A or B.

Example: To program chapters in order of Chapter 3 on side

A, Chapter 4 on side B and Chapter 2 on side A

① Press the SIDE A disk side selector key, then

press numeric key [3].

② Press the SIDE B disk side selector key, then

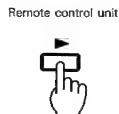
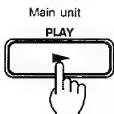
press numeric key [4].

③ Press the SIDE A disk side selector key, then

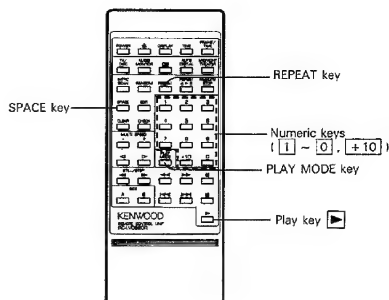
press numeric key [2].

- If you make a mistake during entry, press the CLEAR key and then re-enter the number(s).

4 Start program play.



- The designated chapters (tracks) are played in the programmed order.
- To play the next or previous chapter (track) in the program, press the ►► or ◄◄ skip key.



■ Repeatedly playing a program

Press the REPEAT key on the remote control unit.



- [REPEAT] appears on the display and the program is played repeatedly.
- To cancel repeat play, press the REPEAT key again.

To create blank spaces between tunes

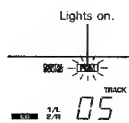
After setting the player to Program mode, press the remote control unit's SPACE key.



- A blank space of approximately 4 seconds is created between tunes. This function is useful when recording cassette tapes for use with the cassette deck's tune skip function.
- The total time display changes to include the time required for the spaces.
- To cancel this feature, press the STOP key then the SPACE key.

■ Checking a program

Press the CHECK key.



- Each time the key is pressed, the next chapter (track) number is displayed in the programmed order.

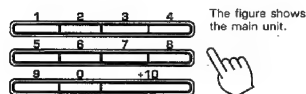
■ Changing a programmed chapter (track)

1 Press the CHECK key to select the programmed chapter (track) number you wish to change.



- The next chapter (track) number in the program is displayed each time you press the CHECK key.

2 Enter the number of the desired chapter (track).

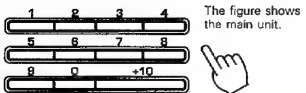


The figure shows the main unit.

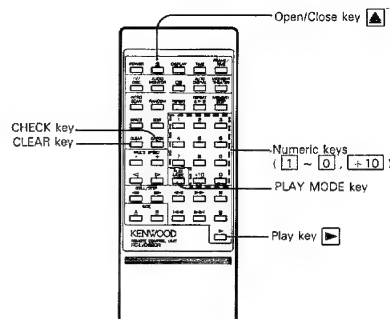
- A program cannot be changed while it is being played.

■ Adding to a program

Enter the chapter (track) number(s) you wish to add.



The figure shows the main unit.



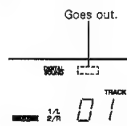
■ Deleting programmed chapters (tracks)

Programmed chapter (track) numbers are deleted one-by-one in reverse order.



- Each time the CLEAR key is pressed, the last chapter (track) number in the program is deleted.

Deleting the entire program



- Normal playback resumes from the current tune.
- Pressing the Open/Close key (▲) also deletes the program in addition to opening the disc tray.

Note:

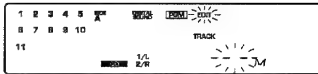
During program play, if you have programmed a chapter which is not on the disc when using a disc which does not have a TOC, the unit will play the next chapter in the program after verifying that the current chapter does not exist.

Editing

When recording tunes from a CD or CDV disc to cassette tape, this function is used to edit the tunes so that they fit within the time limits of side A and side B so the last tune on each side does not get cut off in the middle.

■ Editing

1 With the player in Stop mode, press the EDIT key.

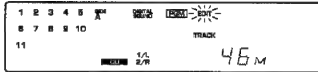
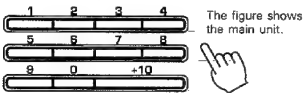


- If it is required to leave a non-recorded space of 4 seconds between tracks, press the SPACE key on the remote control unit before pressing the EDIT key.

2 Input the total recording length of the tape (both sides) in minute units.

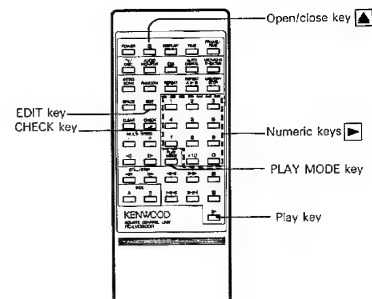
Example: To edit for a 46-minute tape, press **[+10]** four times and then press **[6]**.

To correct a mistaken entry, press the CLEAR key and then re-enter the recording time.



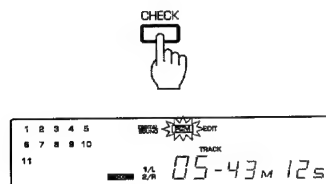
- Recording times of 100 minutes or more cannot be input.
- The player edits the tunes as described below.
- ① The input recording time is divided in half (resulting in 23 minutes in the example), and then the player automatically selects the track numbers of tunes to fill the A file (side A of the tape).
- ② After a few seconds, the remaining time left on side A appears on the display, and then the player edits the B file (side B of the tape) in the same manner.

Editing sequence	TV screen display example	Player display example (when using a CD)
Editing begins A edit	EDIT-A	
A edit completion	REMAIN EDIT-A 01:28	
B edit	EDIT-B	
B edit completion	REMAIN EDIT-B 00:12	
Edit completion	TOTAL STOP 01-43:12 EDIT PGM	



■ Checking an edited program

Press the CHECK key.



- Each time the CHECK key is pressed, the next track number in the edited program sequence is displayed, starting at the beginning of the A file and continuing to the B file.

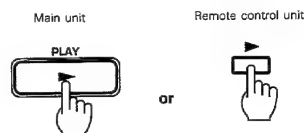
Relation between program selection and editing

When a disk which has been programmed is edited, the programmed tracks are edited in priority and the tracks which have not been programmed are added in the editing only when there is a space left within the set recording time.

Notes:

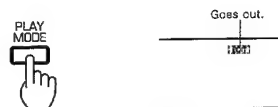
- If you enter a recording time which differs from the length of the tape you are using, editing will be carried out normally but excessive blank space may be left on the tape or the last tune on side A or B may get cut off in the middle.
- The Edit function can edit a maximum of 20 tunes.
- If tune number 32 or above is programmed, the tunes from that tune through the last programmed tune will be erased from a program.
- Editing may not be carried out properly if you use a disc which contains only one tune or a disc such as a classical music CD which contains one track number that has a long playback time.

■ Playing an edited program



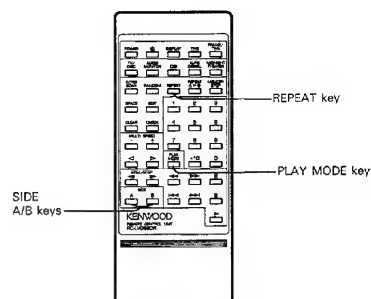
- Playback begins of the tunes in the A file. When the last tune in the A file has finished playing, the unit enters pause mode. Pressing the play (▶) key again starts playback of the tunes in the B file.

■ Deleting the entire edited program



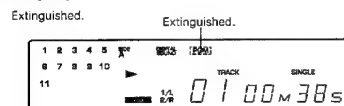
- Normal playback resumes from the current tune.
- Pressing the open/close key (▲) also deletes the program in addition to opening the disc tray.

Repeat play



■ Repeatedly playing one side of a disc

- 1 Make sure **PGM** is extinguished on the display.



- If **PGM** is lit, press the PLAY MODE key.

- 2 Press the remote control unit's **REPEAT** key once.



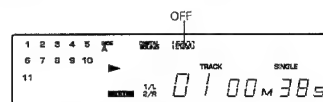
- **REPEAT** appears in the display and one side of a disc is played repeatedly.
- This is not possible during A>B repeat play.
- To cancel, press the REPEAT key again.

- 3 Start playback.



■ Repeat playback of two disk sides LD

- 1 Ensure that the **PGM** indicator on the display is OFF.



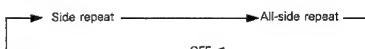
- If the **PGM** indicator is ON, press the PLAY MODE key to turn it OFF.

- 2 Press the **REPEAT** key on the remote control unit twice to initiate the all-side repeat mode.



- Each press of the REPEAT key changes the repeat modes as shown below.

With an LD:



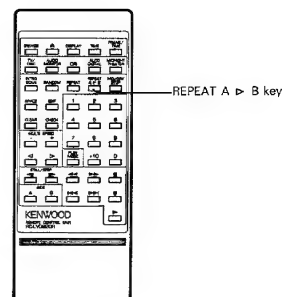
With a CD or CDV:



- 3 Start playback.

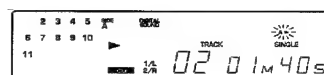


Repeat play



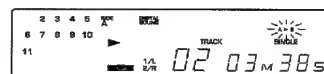
■ Repeatedly playing a desired section (A > B Repeat)

- 1 While the disc is playing, press the remote control unit's REPEAT A > B key at the start of the section you wish to repeat.



- Check to make sure that [PGM] and [REPEAT] are extinguished in the display.

- 2 Press the REPEAT A > B key again at the end of the section you wish to repeat.



- The designated section is played repeatedly.
- To cancel A > B repeat play, press the REPEAT A > B key again. (Normal playback resumes.)
- When using a disc which has time numbers recorded in minute units, the boundaries of the designated section may be slightly shifted during playback.

Random playback

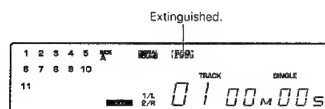
The random playback selects every track to be played in random order. (LD with TOC, CDV or CD)
The random playback ends after having played all tracks on the disk.

Random playback operation

1 Set the unit in the stop mode.



2 Ensure that the PGM indicator is OFF.



- If [PGM] is ON, press the PLAY MODE key.

3 Press the RANDOM key.



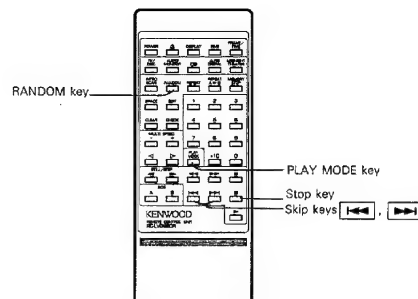
Main unit



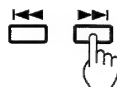
Remote control unit



- The PLAY indicator blinks. When the track to be played is selected, the track number indicator of the track lights up and playback starts.
- When a track has been played, another track is selected randomly and played.
- If the RANDOM key is pressed during normal playback, random playback starts after the track being played.
- With a double-sided LD, random playback is performed on side A then on side B, and it ends when all tracks on side B have been played.
- If the REPEAT key is pressed during random playback, random repeat playback starts. (Refer to page 25 for the repeat playback.)



To select a different track during random playback:



- When the skip key (◀) is pressed once, the playback returns to the beginning of the track being played so it can be played again.
- When the skip key (▶) is pressed, another track is selected randomly.

To resume normal playback

Press the RANDOM key again.



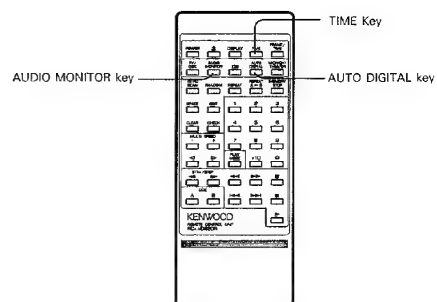
Main unit



Remote control unit

- Normal playback resumes from the current tune.
- If you press the stop (■) key or OPEN/CLOSE (▲) key, Random Play will be canceled and playback will stop.

Audio switching

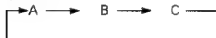


■ Selecting the desired audio

Press the remote control unit's **AUDIO MONITOR** key.



Each time the AUDIO MONITOR key is pressed, the audio changes according to the following sequence:



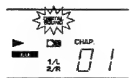
- When the power is turned on, the audio is set for stereo. Press the AUDIO MONITOR key when you wish to listen to sound from only the left or right channel, or when you wish to select the English channel or other language channel from a bilingual source.

	Audio heard from speaker(s)		Indication	
	Stereo disc	Bilingual	Display	TV screen
A	Left channel	Audio 1 (left)	1/L	1/L
B	Right channel	Audio 2 (right)	2/R	2/R
C	Stereo	Audio 1 (left) Audio 2 (right)	1/L 2/R	STEREO

■ Playing digital audio discs

There are two types of audio recording used with LDs: digital recording and analog recording. Digital audio LDs also contain analog recorded audio, allowing you to select either type of audio.

Discs which bear one of the logos shown at the right give output priority to digital audio. To listen to analog audio, press the **AUTO DIGITAL** key on the remote control unit.



*digital
SOUND*

**digital
AUDIO**

Digital audio disc logos

*digital
SOUND* MULTI AUDIO

Multi Audio disc logo

- Each press of the key switches between digital audio and analog audio.
- You can get full enjoyment from Multi Audio discs by making use of both the AUDIO MONITOR key and the AUTO DIGITAL key.

Switching the time display

Each time the TIME key is pressed, the contents of the time display change according to the sequences listed below according to disc type and play mode.

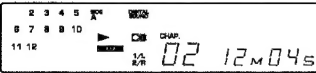


Disc type		TOC existence	Mode	Display contents
LD	CLV	With TOC	Normal modes	① Total elapsed time of the disc → ② Total remaining time of the disc ④ Remaining time of the current chapter ← ③ Elapsed time of the current chapter
			Program mode	Total playing time of program (on TV screen)
		Without TOC	Normal modes	Total elapsed time of the disc
	CAV	With TOC	Normal modes	Frame number
			Program mode	Total playing time of program (on TV screen)
		Without TOC	Normal modes	Frame number
CD, CDV			Normal modes	① Elapsed time of the current track → ② Remaining time of the current track → ③ Total elapsed time of the disc ④ Total remaining time of the disc ←
			Program mode	Total playing time of program (on TV screen)

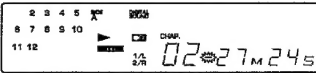
Normal modes: Refers to other modes than the program mode.

Display examples: For a CLV disc with a TOC

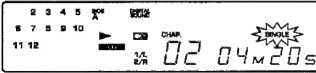
① Total elapsed time of the disc



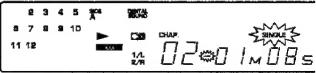
② Total remaining time of the disc



③ Elapsed time of the current chapter



④ Remaining time of the current chapter



Useful functions

INTRO SCAN function



When the INTRO SCAN key is pressed in the stop mode, the first 10 seconds of every chapter (track) on the disk will be played.

- If it is pressed in the program mode, chapters (tracks) will be played in order they were programmed.
- When the key is pressed again, normal playback starts from the current position.
- This operation does not occur with a disk which does not contain chapters (tracks).
- With a double-sided LD, Intro Scan of side A occurs first, then Intro Scan of side B occurs after it.

MEMORY STOP function



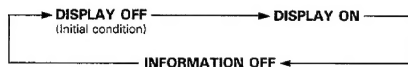
If you press the MEMORY STOP key during playback, the player memorizes the current position and enters stop mode. If you then press the play (▶) key, playback will start again at the memorized position.

- The memory of the position is held even after the POWER key is pressed to OFF.
- The memory is cleared whenever the STOP key is pressed.

DISPLAY key



Each time the DISPLAY key is pressed, the display changes according to the following sequence.



① DISPLAY ON

The character display appears on the TV screen during playback.

② DISPLAY OFF

Characters are not displayed during playback.
The character display appears on the TV screen in the stop mode.

③ INFORMATION OFF

Characters are not displayed on the TV screen.
The display on the main unit shows the chapter (track) number and time, or the frame number alone.

MIDNIGHT THEATER function



When the MIDNIGHT THEATER key is pressed, the sound level of effects of a movie, etc., becomes equal to the level of human voice so that it is easier to hear.

This feature is convenient in low-volume listening in the nighttime, etc.

- This feature can be canceled by pressing the key again.

In case of difficulty

What appears to be a malfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Symptom	Cause	Remedy
The power does not come on when the power switch is pressed.	<ul style="list-style-type: none"> The power cord is not plugged in completely. Power to the amplifier is turned off. 	<ul style="list-style-type: none"> Securely plug the power cord into the outlet. Turn on the power to the amplifier.
Playback does not start when the play (▶) key is pressed.	<ul style="list-style-type: none"> The power is not turned on. There is no disc in the player. There are no signals recorded on the side of the disc being played. 	<ul style="list-style-type: none"> Press the player's power switch. Load a disc and press the play (▶) key. Turn the disc over and properly place it on the disc tray.
The play indicator (▶) is lit but no image/sound is seen/heard.	<ul style="list-style-type: none"> The TV is not turned on. The connection cords are not properly connected. The TV's input switch is not set properly. 	<ul style="list-style-type: none"> Turn on the TV. Properly reconnect the connection cords. Set the switch to TV or VIDEO. (Set to TV when using an RF modulator.)
Television programs do not come in.	<ul style="list-style-type: none"> The TV antenna is not connected properly. The output of the RF modulator is switched to VDP (DISC) side. The TV's input switch is set to VIDEO. 	<ul style="list-style-type: none"> Properly connect the antenna. Press the remote control unit's TV/DISC key. Set the switch to TV.
Still frame, frame advance, or Multi Speed playback cannot be carried out.	<ul style="list-style-type: none"> The disc is an extended play (CLV) disc. 	<ul style="list-style-type: none"> Still frame, frame advance, and multi speed playback functions are not possible with extended play (CLV) discs.
During LD playback, the picture becomes disrupted when the image is fast-forwarded or fast-reversed.	<ul style="list-style-type: none"> The picture will be slightly disrupted during fast-forward and fast-reverse operations. 	<ul style="list-style-type: none"> This is not a malfunction.
The picture does not look good, picture/sound quality is poor.	<ul style="list-style-type: none"> The video cord is not properly connected. A nearby device is generating noise. The disc is dirty. The disc is scratched or flawed. There is condensation on the optical lens. 	<ul style="list-style-type: none"> Properly connect the cord. Separate this unit as far as possible from the device you think is generating the noise. Refer to the "Disc Handling Precautions" section and wipe the dirt from the disc. Use a new disc. Refer to the "Beware of condensation" section and evaporate the condensation.
No sound is heard.	<ul style="list-style-type: none"> The audio output cord is not properly connected. The volume control of the TV or amplifier is not adjusted properly. The player is in a special playback mode. 	<ul style="list-style-type: none"> Properly connect the audio cord. Set the sound volume to an appropriate level. Press the play ▶ key to resume normal playback mode.
Playback is not possible, and "ERROR" is displayed on the TV screen.	<ul style="list-style-type: none"> The disc is not placed horizontally. 	<ul style="list-style-type: none"> Turn the power OFF and place the disc in the correct position.
It takes a while for the disc to start playing.	<ul style="list-style-type: none"> Time is required for the unit to detect the disc type and size and for the rotation of the motor to stabilize. This is not a malfunction. 	<ul style="list-style-type: none"> Approximately 10~20 seconds is required for a disc to start playing, although the time differs depending on the disc.
The disc tray automatically opens.	<ul style="list-style-type: none"> The disc is placed on the tray at slant. 	<ul style="list-style-type: none"> Properly place the disc on the tray.

Notes:

1. Since this unit incorporates a microprocessor, external noise or interference may cause the unit to operate abnormally. If this should ever occur, press the POWER switch OFF and then press it ON again after a period of several seconds.
2. Do not use contact cleaner because it could cause a malfunction. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

Specifications

[Type]

Video disc format LaserVision format
Signal read system Semiconductor laser
Video output format NTSC
Video output lines 2 lines (S-VIDEO terminal,
RCA pin jack)
Audio output lines 2 lines (optical terminal,
RCA pin jack)

[Characteristics]

Video output level 1 Vp-p (75 Ω load,
sync. negative)
S-VIDEO output level Y output : 1 Vp-p (75 Ω load,
sync. negative)
C output : 0.286 Vp-p
(75 Ω load)

Horizontal resolution 425 lines
Video signal to noise ratio More than 49 dB
Digital audio section

Frequency response 4 Hz ~ 20 kHz
Signal to noise ratio More than 98 dB
Total harmonic distortion Less than 0.006%
(1 kHz)

Wow and flutter Below measurable limit
($\pm 0.001\%$ W. PEAK)

Output level/impedance 2 V/1.1 k Ω

Optical output (optical
fiber output terminal) - 15 dBm ~ - 21 dBm

RF modulator output channel VHF channel 3 or 4
Allowable operating temperature range 5°C ~ 40°C
Allowable operating humidity range 5% ~ 90%
(condensation should not form)

[General]

Power consumption 36 W

Dimensions W: 440 mm (17-5/16")

H: 139 mm (5-1/2")

D: 446 mm (17-9/16")

Weight (Net) 9.2 kg (20.2 lb)

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

For the U.S.A.

Note to CATV system installer:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and in, particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

For the U.S.A.

FCC WARNING:

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For CANADA

DOC REGULATION

"This digital apparatus does not exceed the CLASS B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications."